

(c) If no established standard for design is used, detailed design calculations must be submitted with the plans required by § 127.110 of this part.

(d) The plans required by § 127.110 of this part should specify their standard for design.

[CGD 82-004, CGD 86-074, 60 FR 57646, Nov. 16, 1995, as amended by CGD 96-041, 61 FR 50731, Sept. 27, 1996]

§ 127.220 General fire protection.

(a) Each OSV must be designed and constructed to minimize fire hazards, as far as reasonable and practicable.

(b) Exhausts of internal-combustion engines, galley uptakes, and similar sources of ignition must be kept clear of and insulated from woodwork and other combustible matter.

(c) Paint lockers and similar compartments must be constructed of steel or be wholly lined with steel.

(d) Except as provided by paragraph (e) of this section, when a compartment containing the emergency source of electric power, or vital components of that source, adjoins a space containing either the ship's service generators or machinery necessary for the operation of the ship's service generators, each common bulkhead and deck must be "A-60" Class construction as defined by § 72.05-10 of this chapter.

(e) The "A-60" Class construction required by paragraph (d) of this section is unnecessary if the emergency source of electric power is in a small, ventilated battery locker that—

- (1) Is located above the main deck;
- (2) Is located in the open; and
- (3) Has no boundaries contiguous with other decks or bulkheads.

§ 127.230 Subdivision and stability.

Each OSV must meet the applicable requirements in subchapter S of this chapter.

§ 127.240 Means of escape.

(a) There must be at least two means of escape, exclusive of windows and portholes, from each of the following spaces:

- (1) Each space accessible to offshore workers.
- (2) Crew accommodations and each space where the crew may normally be employed.

(b) At least one of the two means of escape must—

(1) Be independent of watertight doors in bulkheads required by part 174 of this chapter to be watertight; and

(2) Lead as directly to the open deck as practicable.

(c) The two means of escape required by paragraph (a) of this section must be widely separated and, if possible, at opposite ends or sides of the space, to minimize the possibility that one incident will block both escapes.

(d) Except as provided by paragraph (e) of this section, a vertical ladder ending at a deck scuttle may not be either of the means of escape required by paragraph (a) of this section.

(e) A vertical ladder ending at a deck scuttle may be the second means of escape if the—

(1) Primary means of escape is a stairway or passageway;

(2) Installation of another stairway or passageway is impracticable;

(3) Scuttle is located where stowed deck cargo could not interfere;

(4) Scuttle is fitted with a quick-acting release, and with a hold-back to hold the scuttle open; and

(5) Scuttle meets the requirements for location, strength, and height of coaming in subchapter E of this chapter.

(f) Each vertical ladder must—

(1) Have rungs that are—

(i) At least 16 inches (410 millimeters) long;

(ii) At most 12 inches (300 millimeters) apart, uniform for the length of the ladder; and

(iii) At least 7 inches (180 millimeters) from the nearest permanent object in back of the ladder;

(2) Have at least 4½ inches (115 millimeters) of clearance above each rung;

(3) Be made of incombustible materials; and

(4) Have an angle of inclination with the horizontal, greater than 70 degrees but not more than 90 degrees.

(g) No means may be provided for locking any interior door giving access to either of the two required means of escape; except that a crash door or locking-device, capable of being easily forced in an emergency, may be employed if a permanent and conspicuous notice to this effect is attached to both

sides of the door. A means may be provided for locking an exterior door to a deckhouse if the door is—

(1) Locked only by a key under the control of one of the OSV's officers; and

(2) Always operable from the inside.

(h) Each passageway or stairway must be wide enough to provide an effective means of escape for the number of persons having access to it even if each person is wearing a lifejacket. There must be no protrusions in the means of escape that could cause injury, ensnare clothing, or damage life-jackets.

(i) No interior stairway, other than within the machinery spaces or cargo holds, may be less than 28 inches wide. The angle of inclination of each stairway with the horizontal must not exceed 50 degrees.

(j) No dead-end passageway, or equivalent, may be more than 40 feet (13.1 meters) in length.

(k) Vertical access must be provided between the various weather decks by means of permanently inclined ladders. The angle of inclination of these ladders with the horizontal must not exceed 70 degrees.

§ 127.250 Ventilation for enclosed spaces.

(a) Each enclosed space within the OSV must be properly vented or ventilated. Means must be provided for closing each vent and ventilator.

(b) Means must be provided for stopping each fan in a ventilation system serving machinery and cargo spaces and for closing, in case of fire, each doorway, ventilator, and annular space around funnels and other openings into such spaces.

§ 127.260 Ventilation for accommodations.

(a) Each accommodation space must be adequately ventilated in a manner suitable for the purpose of the space.

(b) Each OSV of 100 or more gross tons must be provided with a mechanical ventilation system unless the OCMI is satisfied that a natural system, such as opening windows, portholes, or doors, will accomplish adequate ventilation in ordinary weather.

§ 127.270 Location of accommodations and pilothouse.

(a) Neither quarters for crew members or offshore workers nor the pilothouse may be located forward of the collision bulkhead required by § 174.190 of this chapter.

(b) Except as provided in paragraph (c) of this section, no part of any deck with accommodations for crew members or offshore workers may be below the deepest load waterline.

(c) Any deck with accommodations for crew members or offshore workers may be below the deepest load waterline if—

(1) The OSV complies with the damage-stability requirements in § 174.205 of this chapter;

(2) Each vertical ladder permitted by § 127.240 of this subpart is above the final-equilibrium waterline when the vessel is subject to the damage prescribed by § 174.205 of this chapter; and

(3) The overhead of at least one vertical ladder is at least 12 inches above the final-equilibrium waterline when the vessel is subject to the damage prescribed by § 174.205 of this chapter.

(d) No hawse pipe or chain pipe may pass through accommodations for crew members or offshore workers.

(e) There must be no direct access, except through solid, close-fitted doors or hatches, between accommodations for crew members or offshore workers and chain lockers, cargo spaces, or machinery spaces.

(f) No access openings, sounding tubes, or vents from fuel-oil or cargo-oil tanks may open into accommodations for crew members or offshore workers, except that access openings and sounding tubes may open into passageways.

(g) Accommodations for crew members must be separate from and independent of those for offshore workers unless the OCMI approves an alternative arrangement.

§ 127.280 Construction and arrangement of quarters for crew members and accommodations for offshore workers.

(a) The following requirements apply to quarters for crew members on each OSV of 100 or more gross tons: